Response to Amendment

This Office Action is in response to a communication received on January 31,
2012.

The Information Disclosure Statements filed November 21, 2011 and February
13, 2012 have been considered.

Claims 1-3, 9-31, 34-45, and 51-67 are pending in this application.

Claim Rejections - 35 USC § 112

The 35 USC §112 rejection of claims 64-67 is hereby withdrawn in light of the
applicant's amendments.

Response to Arguments

Applicant's arguments filed January 31, 2012 have been fully considered but they
are not persuasive.

The applicant argues that the combination of Hirai in view of Haraguchi teaches
authenticating a user, rather than application authentication. *See* remarks, pp. 27-28.
Please note, the claim language of claim 1, only requires authentication information
including identification information unique to the application. The examiner agrees, that
the prior art rejection teaches a form of user authentication and does not perform
authentication based on the application, however, the application does not require
explicit application authentication. As previously addressed, the authentication process
only requires that in that a unique identifier for the application is included. Hirai teaches

validating a request made to the electronic apparatus. This validation process includes

identifying and registering an application (¶90-91), determining whether the identified

user is allowed to perform the requested operation while using the identified application

(¶92-95). As result, Hirai teaches the idea of the operation request being validated

include the operation of comparing the identified application with stored information in

the external apparatus to determine whether that application is permitted to perform the

requested function (¶94).

The applicant argues that the combination of Hirai in view of Haraguchi fails to

explicitly indicate applications operating on an external apparatus. See remarks, pp.

28-29. More specifically, that Haraguchi teaches services being external, not

necessarily applications. See id. Hirai teaches applications (see Fig. 4, element 130)

and defines those applications as various services that the MFP can provide. See ¶50.

Haraguchi teaches an external service provider which operates services to be provided

to a MFP which includes thinks like "scanning service" which is the type of applications

which are provided in Hirai's applications. It is clear that both Hirai's applications and

Haraguchi's services are analogous in terms that they are both software applications

which expand the functionality of the MFP. Thus the applications of Hirai are the types

of applications which Haraguchi teaches would be provided as services on a remote

server.

The applicant argues that combination of Hirai in view of Haraguchi fails to

explicitly indicate provides a function that uses at least one of the plurality of hardware

resources specified by the application. See remarks pp. 30-31. The examiner

disagrees, Hirai teaches that request from "upper layers" include determining whether

specified resources needed to perform the requests are available (¶42). It is clear from

the disclosure that Harai's applications are upper layer entities which are performing

said requests (See Fig 1, elements 111-116). As result, Hirai teaches the requests from

the applications request specified and necessary hardware resources to be allocated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 9-11, 13-31, 34-35, 37-45, 51-53, and 55-63 are rejected under 35

U.S.C. 103(a) as being unpatentable over Hirai (20040021890) in view of Haraguchi

(7102777).

Regarding claims 1, 29, and 43, Hirai teaches an electronic apparatus for

executing an operation using an application, comprising:

communicating unit configured to communicating with an external apparatus via

a communication line (¶75);

a storage unit configured to store identification information unique to one of a

plurality of applications (¶92);

a processing unit compled to the communicating unit, the storage unit, and the

plurality of hardware resources (Fig 2, element 302)

controlling unit for executing an operation using an application by communicating

with the external apparatus by communicating with the external apparatus by the

communicating unit (¶77); an operation execution request that is issued by the

application and requests execution of the operation using the application (¶126), the

operation providing an image processing function using at least one of the plurality of

hardware resources specified by the application (¶41-42);

authenticating unit configured to carry out, using authentication information that is

added to the operation execution request (¶91-94), an authentication process to confirm

validity of the operation execution request when the communicating uint receives the

operation execution request from the external apparatus; the authentication information

including identification information unique to the application; and the authenticating

means confirms that the operation execution request is valid if the identification

information matches identification information that is stored in the storage unit (¶92) and

operation execution permitting unit for permitting execution of the operation if the

authenticating unit confirms that the operation execution request is valid (¶91-92).

Hirai teaches a plurality of applications running on the electronic apparatus, but

does not explicitly indicate that those applications can be within the external apparatus

or that requests from the applications are received by the communications unit.

Haraguchi teaches an electronic apparatus that applications or services available

to that apparatus can be running within the electronic apparatus or alternatively running

on a separate server in the network (Col. 5, lines 16 - 21; Col. 3, lines 18 - 22).

It would have been obvious to one of ordinary skill in the art at the time the invention was made was to allow the electronic apparatus in Hirai to interface with service providers to access the external services or applications running on those service provides which would allow the external applications to make requests over the network to the peripherals of Hirai and would result in additional functionality to be added to the multipurpose peripheral without having to individually replace or update each MFP.

Regarding claims 2, 30, and 44, Hirai teaches the electronic apparatus as claimed in claims 1, 29, and 43.

Hirai does not explicitly indicate device start notification sending means for sending a start notification of the electronic apparatus to the external apparatus by the communicating means; and application information registering means for registering information related to a usable application that is added to an application usability notification, when the application usability notification from the external application is received by the communicating means in response to the start notification sent by the device start notification sending means.

Haraguchi teaches device start notification sending means for sending a start notification of the electronic apparatus to the external apparatus by the communicating means; and application information registering means for registering information related to a usable application that is added to an application usability notification, when the application usability notification from the external application is received by the

communicating means in response to the start notification sent by the device start

notification sending means (Fig 3, Col. 3, lines 51 – 56).

Regarding claims 3, 30, and 45, Hirai in combination with Haraguchi teaches

the electronic apparatus as claimed in claims 2, 30, and 44, wherein the device start

notification sending means sends the start notification to the external apparatus when a

power of the electronic apparatus is turned ON (Haraguchi, Fig 3, Col. 3, lines 51 – 56,

where the electronic apparatus can only send messages if it is currently powered on

and operating).

Regarding claims 9 and 51, Hirai teaches the electronic apparatus as claimed

in claims 1 and 43, wherein:

the authentication information <u>added to the operation execution request</u> includes

identification information unique to the application and type information indicating a type

of the application (¶90-95);

the identification information stored in the storage unit includes type information

(¶92); and

the authenticating means confirms that the operation execution request is valid if

<u>the identification information, including the type information added to the operation</u>

<u>executon request, matches the identification information, including the type information</u>

<u>that is stored in the storage unit</u> (¶90-95).

Regarding claims 10, 34, and 52, Hirai teaches the electronic apparatus as

claimed in claims 1 29, and 43, further comprising: identification information setting

means for setting identification information unique to the application with respect to

which an access to the electronic apparatus is permitted or rejected; and operation

execution permitting or rejecting means for permitting or rejecting the execution of the

operation requested by the operation execution request, if identification information

unique to the application and added to the operation execution request matches the

identification information set by the identification information setting means (¶90-95).

Regarding claims 11, 35, and 53, Hirai teaches the electronic apparatus as

claimed in claims 1 29, and 43, further comprising: line type judging means for judging a

type of communication line via which the operation execution request is received by the

communicating means; and operation execution permitting or rejecting means for

permitting or rejecting the execution of the operation requested by the operation

execution request depending on a judgment result of the line type judging means (¶135-

137).

Regarding claims 13, 37, and 55, Hirai teaches the electronic apparatus as

claimed in claims 1, 29, and 43.

Hirai does not explicitly indicate device usability notification sending means for

sending to the external apparatus a usability notification indicating a usability of the

electronic apparatus when the communicating means receives a connection request

from the external apparatus, wherein the controlling means executes the operation

when an operation execution request that requests execution of the operation using the

application within the external apparatus is received from the external apparatus by the

communicating means in response to the usability notification sent to the external

apparatus by the device usability notification sending means.

Haraguchi teaches an electronic apparatus including device usability notification sending means for sending to the external apparatus a usability notification indicating a usability of the electronic apparatus when the communicating means receives a connection request from the external apparatus, wherein the controlling means executes the operation when an operation execution request that requests execution of the operation using the application within the external apparatus is received from the external apparatus by the communicating means in response to the usability notification sent to the external apparatus by the device usability notification sending means (Fig 3, Col. 3, lines 51 – 56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made was to allow the electronic apparatus in Hirai to interface with service providers to access the external services or applications running on those service provides which would additional functionality to be added to the multipurpose peripheral without having to individually replace or update each MFP.

Regarding claims 14, 38, and 56, Harai teaches the electronic apparatus as claimed in claims 13, 37, and 55, further comprising: application information registering means for registering information related to a usable application that is added to the connection request, when the connection request from the external application is received by the communicating means (¶91).

Regarding claims 15, 39, and 57, Harai teaches the electronic apparatus as claimed in claim 13, further comprising: authenticating means for carrying out an authentication process to confirm validity of the connection request when the

communicating means receives the connection request from the external apparatus;

and transmission permitting means for permitting sending of the usability notification if

the authenticating means confirms that the connection request is valid (¶90-95).

Regarding claims 16 and 58, Harai teaches the electronic apparatus as claimed

in claims 15 and 57, wherein the authenticating means carries out the authentication

process using authentication information that is added to the connection request (¶90-

95).

Regarding claims 17 and 59, Harai teaches the electronic apparatus as claimed

in claims 16 and 58, wherein: the authentication information is identification information

unique to the application; and the authenticating means confirms that the connection

request is valid if the identification information matches identification information that is

registered in advance (¶90-95).

Regarding claims 18, 40, and 60, Harai in combination with Haraguchi teaches

the electronic apparatus as claimed in claims 13, 34, and 55, wherein the

communicating means carries out a communication sequence for confirming validity of

a connection request according to a protocol that is predetermined between the

electronic apparatus and the external apparatus when the connection request is

received from the external apparatus, and further comprising: authenticating means for

carrying out an authentication process to confirm validity of the connection request from

the communication sequence carried out by the communicating means; and

transmission permitting means for permitting the device usability notification sending

means to send the device usability notification if the authenticating means confirms that the connection request is valid (Harai, ¶90-95).

Regarding claims 19 and 61, Harai in combination with Haraguchi teaches the electronic apparatus as claimed in claims 18 and 60, wherein the authenticating means confirms that the connection request is valid if the communication sequence is in accordance with the protocol (Haraguchi, Col. 4, lines 3 - 15).

Regarding claims 20, 41 and 62, Harai teaches the electronic apparatus as claimed in claims 13, 34, and 55, further comprising: first authenticating means for carrying out a first authentication process to confirm validity of a connection request when the communicating means receives the connection request from the external apparatus; transmission permitting means for permitting the device usability notification sending means to send the device usability notification if the first authenticating means confirms that the connection request is valid; second authenticating means for carrying out a second authentication process to confirm validity of the operation execution request when the communicating means receives the operation execution request from the external apparatus in response to the device usability notification sent by the device usability notification sending means; and operation execution permitting means for permitting execution of the operation if the second authenticating means confirms that the operation execution request is valid (¶90-95, wherein the second authentication is the use restriction imposed on the user and application before allowing any operations by the applications to be performed).

Regarding claims 21, 42, and 63, Harai in combination with Haraguchi teaches

the electronic apparatus as claimed in claims 13, 34, and 55, wherein the

communicating means carries out a communication sequence for confirming validity of

a connection request according to a protocol that is predetermined between the

electronic apparatus and the external apparatus when the connection request is

received from the external apparatus, and further comprising: first authenticating means

for carrying out a first authentication process to confirm validity of the connection

request from the communication sequence carried out by the communicating means

(Harai ¶90-91, Haraguchi, Col. 4, lines 3 - 15); and transmission permitting means for

permitting the device usability notification sending means to send the device usability

notification if the first authenticating means confirms that the connection request is valid;

second authenticating means for carrying out a second authentication process to

confirm validity of the operation execution request when the communicating means

receives the operation execution request from the external apparatus in response to the

device usability notification sent by the device usability notification sending means; and

operation execution permitting means for permitting execution of the operation if the

second authenticating means confirms that the operation execution request is valid

(¶90-95, wherein the second authentication is the use restriction imposed on the user

and application before allowing any operations by the applications to be performed).

Regarding claims 22-24, and 27, Hirai in combination with Haraguchi teaches

an electronic apparatus system in which the electronic apparatus of claims 1, 2, 13, and

14 and the external apparatus are communicatably coupled via a communication line,

said external apparatus comprising: application storing means; an other communicating means for communicating with the electronic apparatus via the communication line; and application usability notification sending means for adding information that is related to the usable application and is stored in the application storing means to the application usability notification before sending the application usability notification to the electronic apparatus by the other communicating means, when the other communicating means receives the start notification from the electronic apparatus (Col. 3, line 46 – Col. 4, line 15).

Regarding claim 25, Harai in combination with Haraguchi teaches the electronic apparatus system as claimed in claim 24, wherein the connection request sending means sends the connection request to the electronic apparatus by the other communicating means when starting the application (Haraguchi, Col. 4, lines 3 – 15).

Regarding claim 26, Harai in combination with Haraguchi teaches the electronic apparatus system as claimed in claim 24, wherein said external apparatus further comprises operation means, and the connection request sending means sends the connection request to the electronic apparatus by the other communicating means in response to an operation by the operation means (Haraguchi, Col. 4, lines 3 – 15).

Regarding claim 28, Harai in combination with Haraguchi teaches an electronic apparatus system in which the electronic apparatus of claim 13 and the external apparatus are communicatably coupled via a communication line, said external apparatus comprising: operation means; application storing means; an other communicating means for communicating with the electronic apparatus via the

communication line; connection request sending means for sending a connection

request to the electronic apparatus by the other communicating means; function

inquiring means for inquiring an existence of a function specified by the operation

means to the electronic apparatus by the other communicating means, when the

usability notification is received from usable electronic apparatuses in response to the

connection request sent by the connection request sending means; device selecting

means for selecting an electronic apparatus capable of realizing the specified function

from the usable electronic apparatuses, when an inquiry result is received in response

to the inquiring made by the function inquiring means; and operation execution request

sending means for sending the operation execution request that requests execution of

the operation using a usable application stored in the application storing means, by the

other communicating means, to the electronic apparatus selected by the device

selecting means (Harai, Col. 3, line 46 – Col. 4, line 15, Haraguchi, Col. 5, lines 53 –

Col. 6, line 12).

Regarding claims 64 and 66, Harai teaches the electronic apparatus as claimed

in claims 1 and 43, further comprising: a plurality of internal applications (¶50), wherein

the controlling unit is configured to further execute a second operation using one of the

plurality of internal applications within the electronic apparatus when a second operation

execution request that requests execution of the second operation using the one of the

plurality of internal applications is generated within the electronic apparatus (¶58-60),

and

the processing unit further includes

an application selecting part configured to distribute data, including commands, received from the controlling unit to a destination based on information added to the data and identifying the destination (¶45, 51), and

the application selecting part distributing the data to the first application via the communicating unit if the information added to the data identifies the first application as the destination, and distributing the data to an arbitrary internal application within the electronic apparatus if the information added to the data identifies the arbitrary internal application as the destination (¶45, 51).

Hirai does not explicitly indicate sending messages to external applications over the communications network if the destination of the message is an external application.

Haraguchi teaches an electronic apparatus that applications or services available to that apparatus can be running within the electronic apparatus or alternatively running on a separate server in the network (Col. 5, lines 16 - 21; Col. 3, lines 18 - 22). Where messages can be transmitted from the peripheral devices to the external applications (Col. 3, ll. 18 – 27).

It would have been obvious to one of ordinary skill in the art at the time the invention was made was to allow the electronic apparatus in Hirai to interface with service providers to access the external services or applications running on those service provides which would allow the external applications to make requests over the network to the peripherals of Hirai and would result in additional functionality to be added to the multipurpose peripheral without having to individually replace or update each MFP.

Regarding claims 65 and 67, Hirai in combination with Haraguchi teaches the

electronic apparatus as claimed in claims 64 and 66, wherein: the storage unit further

stores the plurality of internal applications (See Hiari, ¶50); and the application selecting

part sends the external application received via the communicating unit to the

controlling unit (See Haraguchi, Col. 3, ll. 18 – 27), and sends each of the plurality of

internal applications received from the storage unit to the control unit (see Hiari,

¶45,51).

Claims 12, 36, and 54 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Harai, Haraguchi, and further in view of Parry (7542160).

Regarding claims 12, 36, and 54, Harai teaches the electronic apparatus as

claimed in claim 4, further comprising: execution request judging means for judging

whether the operation execution request is a normal request or an abnormal request

(¶90-92).

Harai does not explicitly indicate abnormality counting means for counting a

number of times the abnormal request is judged by the execution request judging

means; and operation execution rejecting means for rejecting the execution of the

operation requested by the operation execution request if a counted value counted by

the abnormality counting means exceeds a predetermined value.

Parry teaches a system for validating access to a electronic apparatus including

abnormality counting means for counting a number of times the abnormal request is

judged by the execution request judging means; and operation execution rejecting

means for rejecting the execution of the operation requested by the operation execution

request if a counted value counted by the abnormality counting means exceeds a

predetermined value (Col. 7, lines 36 – 46).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to include Parry's teaching of a predetermined number of allowed

authentication attempts in Harai's system to prevent an unauthorized user to attempt to

guess a password through brute force method of password attempts.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to KEVIN BATES whose telephone number is (571)272-

3980. The examiner can normally be reached on M-F 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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